Claims after this respons :

1(Canceled). A light source for generating and coupling light of a first wavelength into an optical waveguide, said light source comprising:

a first optical cavity comprising a bottom mirror located outside of said optical waveguide, and a top mirror comprising a reflector located within said optical waveguide; and

an active region between said top and bottom mirrors for generating light of said first wavelength.

2(Currently Amended). A light source for generating and coupling light of a first wavelength into an optical waveguide, said light source comprising:

~~a first~~ an optical cavity comprising a bottom mirror located outside of said optical waveguide, and a top mirror comprising a reflector located within said optical waveguide; and

an active region between said top and bottom mirrors for generating light of said first wavelength,

said light source further comprising a polarization filter between said top and bottom mirrors.

3(Previously Amended). The light source of Claim 2 wherein said optical waveguide is an optical fiber.

4(Original). The light source of Claim 3 wherein said reflector is a Bragg reflector.

5(Currently amended). A light source for generating and coupling light ~~of a first~~ characterized by a wavelength into an optical waveguide, said light source comprising:

~~a first~~ an optical cavity comprising a bottom mirror located outside of said optical waveguide, and a top mirror comprising a reflector located within said optical waveguide; and

an active region between said top and bottom mirrors for generating light of said ~~first~~ wavelength, wherein said reflector is a Bragg reflector, said optical waveguide is an optical fiber, and

wherein said Bragg reflector further comprises a mechanism for altering the wavelength of the light reflected thereby.

6(Original). The light source of Claim 5 wherein said mechanism also alters the distance between said top and bottom mirrors.

7(Original). The light source of Claim 3 wherein said active region generates light by absorbing light of a second wavelength.

8(Original). The light source of Claim 7 further comprising a pumping laser for generating light of said second wavelength.

9(Original). The light source of Claim 7 wherein said bottom mirror is transparent to light of said second wavelength.

10(Previously amended). A light source for generating and coupling light of a first wavelength into an optical waveguide, said light source comprising:

a first optical cavity comprising a bottom mirror located outside of said optical waveguide, and a top mirror comprising a reflector located within said optical waveguide; and

an active region between said top and bottom mirrors for generating light of said first wavelength, wherein said optical waveguide is an optical fiber and said active region generates light by absorbing light of a second wavelength, said light source further comprising a pumping laser for generating light of said second wavelength,

wherein said pumping laser includes a second optical cavity comprising a top mirror, active region, and bottom mirror, wherein said top mirror of said pumping laser is electrically connected to said bottom mirror of said first optical cavity, and wherein said active region of said pumping laser generates light in response to an electrical current passing therethrough.

11(Original). The light source of Claim 10 wherein said top mirror of said pumping laser is located on an end of said optical fiber.

12(Currently amended). A light source for generating and coupling light ~~of a first~~ characterized by a wavelength into an optical waveguide, said light source comprising:

~~a first~~ an optical cavity comprising a bottom electrically conducting mirror located outside of said optical waveguide, and a top mirror comprising a reflector located within said optical waveguide;

an active region between said top and bottom mirrors for generating light of said ~~first~~ wavelength;

a top contact for supplying a current that flows from said top contact through said active region to said bottom mirror when a potential is applied between said top contact and said bottom mirror, said light of said ~~first~~ wavelength being generated in said active region when said current flows through said active region.